

Claims

- [c1] 1. A surface mount package for a multi-chip device comprising:
- a leadframe having a first and a second die pad and leadouts from the respective die pads;
 - at least one environmentally responsive sensor chip secured to the first die pad of the leadframe;
 - at least one environmentally isolated chip secured to the second die pad of the leadframe, the leadframe being coupled between the chips for establishing communication therebetween;
 - a body including an over molded portion for encasing the environmentally isolated chip and a portion of the leadframe; and an open molded portion having a recess formed with an opening for receiving the environmentally sensitive chip therein; and
 - an apertured cover secured in the recess forming a protective covering over the sensor chip and for allowing communication of the sensor chip externally of the package.
- [c2] 2. The surface mount package of claim 1, further including a protective material disposed in the recess for cov-

ering the sensor chip.

- [c3] 3. The surface mount package of claim 2, wherein the protective material comprises a silicone gel.
- [c4] 4. The surface mount package of claim 1, wherein the first and second die pads comprise planar areas disposed in parallel planes, such that the isolated chip and the sensor chip are disposed for minimizing a thickness of the body.
- [c5] 5. The surface mount package of claim 1, wherein the body has marginal sides, and a top and a bottom surface in parallel planes, and the leadframe includes leadouts extending beyond the marginal sides and having distal end portions lying in a plane adjacent to and parallel with the bottom surface.
- [c6] 6. A method for manufacturing a surface mount package for a multi-chip device comprising the steps of:
forming a planar leadframe having first and second die pads, corresponding contacts and leadouts and a trimable marginal edge temporarily securing the die pads, contacts and leadouts together in a planar structure;
mounting an ASIC chip to the first die pad of the leadframe and wirebonding the chip to corresponding the

contacts on the leadframe;
forming a body by over molding the ASIC and a portion of the leadframe to isolate the ASIC chip from environmental effects, and forming a chamber in the body adjacent to the second die pad having an opening for receiving a cover;
mounting a sensor chip to the second die pad of the leadframe and wirebonding the sensor chip to the corresponding contacts on the leadframe;
covering the opening with an apertured cover; and sealing the cover therein.

- [c7] 7. The method according to claim 6 further comprising the step of deforming the leadframe for positioning at least one of the first and second die pads in parallel planes.
- [c8] 8. The method according to claim 6 further comprising the step of depositing a protective gel in the recess over the sensor chip.
- [c9] 9. The method according to claim 6 further including singulating the device by trimming a tiebar in the leadframe after molding the body.